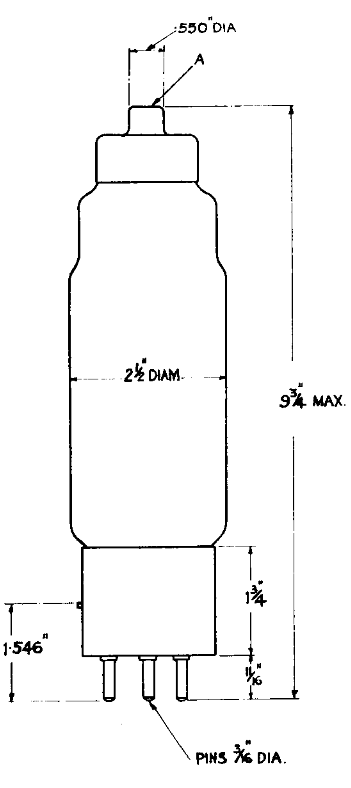
—Standard Valves—

4069-A VALVE

PENTODE.

SPECIFICATION.



Cathode.

Thoriated tungsten filament.
Constant voltage type.

Base.

American Giant 5-pin.

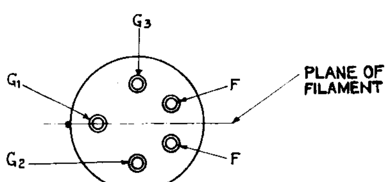
Dimensions.

Max. overall length	9¾" (24·7 cms.)
Bulb diameter	2½" (6·4 cms.)
Anode cap diameter	0·55" (1·4 cms.)
Net weight	0·75 lbs. (340 gms.)

Constants.

Filament voltage	10 volts
Nominal filament current	5·4 amps.
*Mutual conductance	4·5 mA. per volt
Grid–anode capacity	0·02 μμF.
Input capacity	15·5 μμF.
Output capacity	5·5 μμF.

* *at* Vp = 2,000 *volts*, V_{g2} = 400 *volts*, V_{g1} = —20 *volts.*



LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage	2,000 volts
Maximum direct screen voltage	400 volts
Maximum direct suppressor voltage	45 volts
Maximum anode dissipation	100 watts
Maximum screen dissipation	35 watts
Maximum direct control grid current	25 mA.
Maximum RF control grid current	8 amps.

Tentative data

—Standard Valves—

TYPICAL OPERATING CONDITIONS.

Class B Telephony	
Direct anode voltage	2,000 volts
Direct screen voltage	400 volts
Direct control grid voltage	—38 volts
Direct suppressor voltage	0 volts
Peak RF input	90 volts
Anode current	75 mA.
Screen current	30 mA.
Screen resistor	55,000 ohms
Driving power	0·9 watts
Peak output	200 watts
Carrier output	50 watts

RADIO FREQUENCY OPERATION.

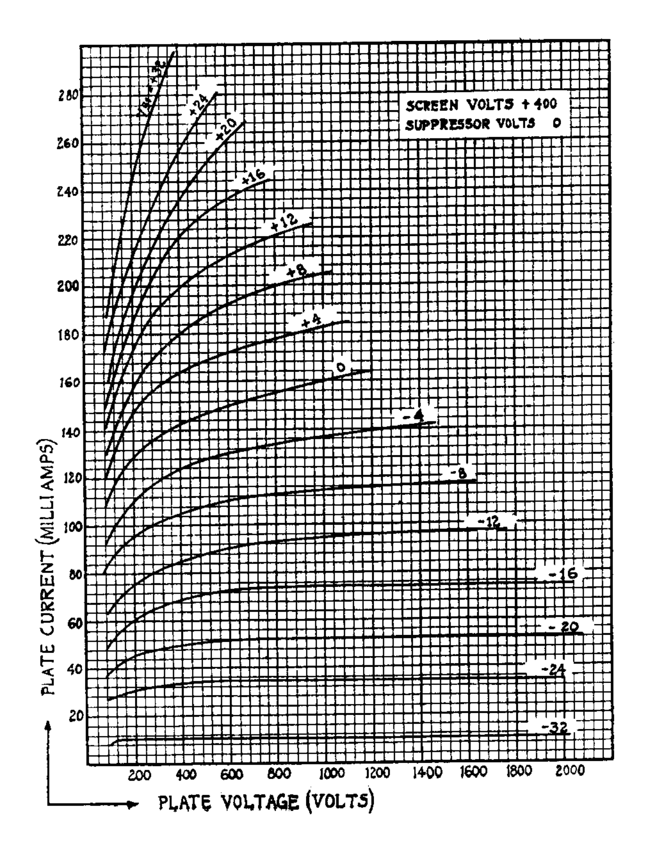
Class C Telephony — Control grid modulated	
Direct anode voltage	2,000 volts
Direct screen voltage	400 volts
Direct control grid voltage	—140 volts
Direct suppressor voltage	0 volts
Anode current	85 mA.
Screen current	20 mA.
Screen resistor	80,000 ohms
Control grid current	2·8 mA.
Peak RF input voltage (V_{g1})	170 volts
Peak AF input voltage (V_{g1})	60 volts
AF power	1·0 watts
Peak RF input power	3·0 watts
Peak output	280 watts
Carrier output	70 watts

Class C Telegraphy	
Direct anode voltage	2,000 volts
Direct screen voltage	400 volts
Direct control grid voltage	—100 volts
Direct suppressor voltage	0 volts
Anode current	120 mA.
Screen current	75 mA.
Screen resistor	21,000 ohms
Control grid current	10 mA.
Peak RF input volts	180 volts
RF input power	1·8 watts
Output	160 watts

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—Standard Valves—

Class C Telephony — Suppressor and Screen modulated	Suppressor	Screen
Direct anode voltage	2,000	2,000 volts
Direct screen voltage	400	400 volts
Direct control grid voltage	—100	—100 volts
Direct suppressor voltage	—50	—45 volts
Peak AF suppressor voltage	90	90 volts
Peak AF screen voltage	0	200 volts
Peak RF input	180	180 volts
Anode current	80	85 mA.
Screen current	85	85 mA.
Screen resistor	20,000	20,000 ohms.
Control grid current	11	11 mA.
RF input power	2·7	2·0 watts
AF input	1·2	6·2 watts
Peak output	240	280 watts
Carrier output	60	70 watts



Tentative data

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